A Qualitative Study of Continuing Education Courses for Seniors Provided in a Long Term Care Facility: The Baycrest Learning Academy at Baycrest Health Sciences

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This report summarizes the findings of a research project that was focused on evaluating the learning format and context of courses that were designed for seniors who are living in supported long term care environments.

The Baycrest Learning Academy is a new, innovative program that delivers academic courses to seniors who are residents of a nursing home and an assisted living facility on the Baycrest campus. This two year old program has been delivered to date with a total of 25 courses designed specifically for this learner population. The goals of this program are to offer intellectually stimulating topics of interest, to utilize effective accessible teaching methodologies that meet the needs of these learners, and to ultimately have an impact on the quality of life on these senior learners. There are currently 350,000 residents in long term care facilities across Canada and this number will increase exponentially as baby boomers age. Continuing Education units in universities can provide a vital resource for informing the development of these on-site programs across the country.

Many seniors in this setting have normal cognitive performance, some have mild dementia and others display a range of cognitive impairment due to existing medical conditions. We divided our courses into those for seniors with mild to moderate cognitive performance and a second group of more highly functioning participants. In both instances, we found it necessary to adapt our teaching methods and selection of faculty to this unique setting. We are designing training programs for our faculty and measuring learner satisfaction as part of ongoing efforts to fine tune this approach. There are no other existing programs of this type in Canada that we are aware of, and our literature review reveals a paucity of data on how to implement and evaluate such programs.

Throughout its pilot and subsequent development, faculty and support staff, such as recreational therapists from the Baycrest Center made a number of observations related to learner engagement,

preparation of course materials, use of multimedia, measuring learner satisfaction and retention of core material and related questions. We chose to interview a substantial pool of learners, the core administrative team who provide the facilities and services for delivery, and teaching staff who have been working with the learners.

The Learning Academy at Baycrest

The Baycrest Learning Academy was co-pioneered by Sandra Kerr, Director of 50+ programs for the Raymond Chang School of Ryerson University and Bianca Stern, Executive Director of The Department of Culture, Arts and Innovation at Baycrest Health Sciences. Baycrest is a health care service continuum and residential facility located on Toronto, Ontario and is a leader in the field of aging and brain health. Baycrest has a long-standing research and innovation pedigree, and their current Center for Learning, Research and Innovation is one of only 3 operating in Canada, funded by the federal government. Baycrest is affiliated with the University of Toronto and is also home to the world-renowned Rotman Research Institute. The Baycrest Center had many features which made them attractive for such a partnership. The Chang School, at Ryerson University under Sandra's direction, has provided seniors in the community with academic continuing education (CE) courses for over 20 years. There was a mutual vision to bring academic courses from the community 50+ program into the Baycrest long term care facility setting.

The Baycrest Learning Academy focused on delivering courses in the nursing home and assisted living apartment. The learners, who are primarily in their late 80s to mid 90's range in cognitive ability from cognitively intact to mild-moderate cognitive impairment. The assisted living apartment had relatively higher functioning learners but due to the fact that residents aged in place, there did exist an overlap of learners at similar functional levels. In both instances, we found it necessary to adapt our teaching methods and selection of faculty. Our literature review revealed a paucity of data on how to implement and evaluate such programs.

This study has allowed us to gather relevant data in a more systemic process although we have been learning iteratively and reflecting on what is working and what is not. Faculty working collaboratively with on-site Baycrest staff have synthesized observations related to learner engagement, preparation of course materials, use of multi media, learner satisfaction and retention of core material. As part of this study, we chose to interview senior learners, core administrative team who provide the facilities and services for delivery and teaching staff who have been working with the learners.

In May of 2013, the first group of four courses were introduced and course feedback was elicited in the form of focus groups and end of course surveys. The response to the first four courses was positive. Class sizes ranged from 15-30 students, most of whom requested further education in their survey responses. In October 2014, an additional four courses were added. The program operates on a 3 semester system per year schedule. In February 2014, a new set of four courses was implemented and a coordinator was hired to develop a long term strategy for the program, given the consistent high attendance and positive feedback from participants. Currently we run 4 courses per term, with 3 terms a year, and a continuous Psychology/Philosophy seminar series once a week. We also provide a summer course and are looking at introducing a 4th full semester per year.

The courses we offer are distinctly different than "how to" courses. Courses in Tai Chi, yoga, baking and fitness, for example, are routinely offered across senior's care facilities in Canada. We are providing academic courses, which feature critical analysis, discussion, abstract thinking and comprehension. The Baycrest Learning Academy provides a genuine university experience, by taking courses to the learner.

The outcomes of this research project include;

1. An analysis of how to adapt teaching methods to this target population, and

2. An analysis of physical facility requirements and implementation requirements for similar programs, including use of multimedia, recruitment of students, retention of students and integration with support functions germane to long term care.

This paper is focused on the adaptation of teaching techniques for this learner population. To date, course enrollment has been robust.

The value of such courses lies in three domains. The first is related to the quality of life in long term care settings for seniors. The "life of the mind" should be, in our opinion, preserved well into one's later years. Recent publications by Rebok et al, (Jan 2014) show that a cohort of 2,832 seniors in the regular community showed increases in quality of life related to life decisions, hygiene and well being after 10 years of participation in seniors education offerings. We have reason to believe, on the basis of our observations, that seniors continue to benefit in these domains in a long term care setting.

Often, assumptions are made about the learning capabilities of older adults, especially those residing in assisted living or long term care. Our experiences (and the literature) have shown us that these individuals continue to have preserved strengths and abilities that can be enriched with the cognitive stimulation of educational courses.

Further, Rebok showed a 2014 study published by the American Geriatric Society that even 10 brief sessions of mental training provided increases in both reasoning and speed of processing, and that four-session booster training at 11 and at 35 months after initial training produced "durable and additional improvements" in both tasks. The third value of such courses is in improving cognitive performance in our groups, by rehearsal, engagement, abstract learning and group learning activities. There are no data on these outcomes and we wish to measure outcomes in the future to see if we can improve cognitive performance or delay the loss of performance through academic course offerings. The first steps of any such long term research program is identification of teaching methodologies and physical environmental constraints or opportunities as they relate to these course offerings. It is our hope that this research project will provide the first initial step toward eventual measurement of cognitive variables such as improvement of memory, reasoning and abstract thinking in learners.

Examples of Courses Offered 2013-2015

Gods and Goddesses of Fashion
Great Jewish Pianists
Jazz Music History
High Adventure Travel and Wilderness Exploration
Art History
Great Discoveries and the Great Women of Science
Aesthetics
Archeology

Literature Review

This is an entirely new field of inquiry, that of the delivery and measurement of learning in long term care settings. Each of our learners has a distinct combination of cognitive and physiological characteristics and each group of learners brings its own set of challenges. As such, we discovered that our literature review was largely inferential in nature, we found ourselves needing to extrapolate on the learning experience from existing papers on senior's education in the community (see Additional References Consulted During Research Project Design).

In an attempt to locate rare papers on this subject, we contacted the Seniors Health Information Network, who conducted a specialized review on our behalf, they found a total of eight relevant papers, only two of which described learning in this setting, and none of these papers was related to ongoing program implementation. The results of this requested review are listed below. (Literature Search: Teaching LTC Residents: Prepared by the Seniors Health Information Network). LTC refers to long term care.

Over the past year, publications in this field have increased substantially, these data were not available when the study began and some of the key references are provided below. In particular, the work on the incidence of dementia, non-dementia changes in cognition and learning and adapted instruction. Cognitive function decline is observed in many sub-categories of seniors. Yu and Boyle et al, 2015, showed that during an 18 year study of older adults, 44% showed no decline, 30% had moderate decline, 13% showed severe decline and 8% showed demonstrable fluctuations in function over time. (American Psychological Association. (2015). What Is the Profile of Cognitive Aging? N*europsychology) and (*Yu, L., Boyle, P., Segawa, E., Leurgans, S., Schneider, J. A., Wilson, R. S., and Bennett, D. A. (2014). Residual decline in cognition after adjustment for common neuropathologic conditions. *Neuropsychology*. Advance online publication.). In addition, changes in lifestyle, income and other social factors influence cognition, effects on learning and higher function are not always due to dementia. (American Psychological Association. (2014). Experiences at Every Stage of Life Influence Mental Function in Advanced Age. *Neuropsychology*.). Judge and Camp showed, using Montessori-adapted teaching methods, that motor and cognitive skill development through teaching is superior to verbal enabling of thinking skills. (Sukel, K. (2015). American Psychological Association. *Fostering Independence*, 46(3), 42.)

Music and art instruction in this group appears to be particularly promising. Both art and music have

been shown to have measurable effects in increasing the latency to decline in early dementias due to Alzheimers (Morgan, Jules. "Hooked on Music: therapy for Alzheimer's disease?" *The Lancet) and see (Neurology* 14.1 (2015): 37). Musical memory is preserved differently than other forms of memory and there is a strong rationale to engage in music courses based on its apparent ability to reduce the decline of verbal and other skills in dementia. (Jacobsen, Jorn-Henrik, Johannes Stelzer, Thomas Fritz, Gael Chetelat, Renaud La Joie, and Robert Turner. "Brain." *Why Musical Memory Can Be Preserved in Advanced Alzheimer's Disease*. June 3, 2015.). Autobiographic recall is enhanced in music therapy programs in dementia (El Haj, Mohamad, et al. "Self-defining memories during exposure to music in Alzheimer's disease." *International Psychogeriatrics* (2015): 1-12.) and thus the effects of courses in music and related arts do appear to show this "triggering effect" we have observed in our program.

When music courses are provided, they contribute to autobiographic recall particularly when sung, rather than listened to, defining a participatory role in learning about the arts as a possible therapeutic intervention (Simmons-Stern, Nicholas R., et al. "Music-based memory enhancement in Alzheimer's Disease: Promise and limitations." *Neuropsychologia* 50.14 (2012): 3295-3303.) The study of art work has been also shown to produce several main effects related to cognition and social connnectedess (Mason D. Flatt, PhD, Amy Liptak, BSN, Rn, Mary Ann Oakley, MA, Jessica Gogan, MA, Tresa Varner, MFA, and Jennifer H. Lingler, PhD, CRNP. "American Journal of Alzheimer's Disease & Other Dementia." *Subjective Experiences of an Art Museum Engagement Activity for Persons With Early-Stage Alzheimer's Disease and Their Family Caregivers*. (2015).)

With respect to the measurement of robust cognitive outcomes of long term learning in seniors, a field well documented and directly useful in our study, the work of George Rebok et al, January 2014 was the most helpful and current source. This reference is listed ahead under its own category. This paper was fortuitously published in January 2014, as we were designing the study. To say that data in this field is just emerging is appropriate.

Inferential logic, or forward reasoning, is a weak basis for drawing any form of conclusion. Extrapolation of data on improvements in learning from community-based senior's programs, for example, is not helpful, in that our learners vary in cognitive ability within and across groups. There is considerable data showing that senior's education is of benefit over the long term, but these data are not of great value in measuring our current learner experience.

Methodology

Our research protocol used Guba and Lincoln's grounded theory approach combined with participant observation. This consists of collection of data from multiple sources and organization of that data into categories which are suggested during data collection. These categories are then compiled and grouped into related themes. These themes are interconnected and lead to an analysis to present a narrative of the learner and instructor experience. Our analysis consists of describing how senior's learning proceeds in the long term care setting, from the viewpoint of the learners, instructors and administrative staff who are directly involved with program delivery. The administrative staff in this case, refers to recreational therapists (RT)s, who provide course recruitment, student tracking, booking rooms and equipment.

The goals were to;

a. isolate variables of program delivery and learning needs/challenges which are different than those of conventional classroom education for seniors
b. describe how those variables inter-relate, for example, how hearing or visual disabilities affect the type, pacing and content of instruction
c. develop a model for addressing these variables where they negatively impact learning

The study subjects were selected from three groups.

The first group, the learner cohort (LC) consisted of interview subjects who had completed courses in the program.. They were interviewed using a short, 5 question exploratory survey probing the following themes.

a. learner satisfaction with the program
b. learner wishes for other academic content
c. learner requests to instructors to improve course quality or to compensate for a disability
d. learner expectations coming into the program
e. retention of core principles taught in the course

The second group, the instructional cohort (IC), was provided with a 5 question survey exploring the following themes.

a. instructor driven changes in course content to adapt material to this group
b. instructor driven changes in content delivery for the course to this group
c. their impression of how much students understood and retained the course material
d. their recommendations regarding pacing of content
e. their recommendations for the use of technology to enhance learning in this group

The third group, the facilities cohort (FC), was interviewed with a 4 question survey exploring the following themes.

a. budgetary planning for introduction academic programs for seniors in long term care
b. space and facility requirements for the program, including technology such as internet access or other needs
c. marketing and recruitment of learners for the program, both internally and externally
d. retaining student records, performance of needs assessments and working with continuing education units at universities or colleges.

In summary, data was collected on the student experience, the faculty experience and the administrative staff experience, in order to form an understanding of the challenges and opportunities for introduction of new programs of this type in the future. As themes emerged from cross-referencing data from diverse interview subjects we were able to construct a descriptive analysis of how seniors education in the community is extended into a long term setting. From these data we were able to determine what elements of these course offerings need to modified to be effective for this target population.

Our methodology shifted during the study as we discovered that instructor observation of learner behavior, reports from recreation therapy staff who worked with the program and investigator discussions with learners also provided rich data. The original framing of our questions was focused on Learner expectations, satisfaction and desire for more program offerings. In all cases, learner satisfaction was positive and indicated contentment with the course goals and delivery. This type of approach, where one approaches the data set from a variety of perspectives, borrows from journalistic inquiry using similar epistemologic principles and cultural anthropology, through observational analysis. In short, we found that reducing all interview data to a specific theme resulted in data loss, as many of the nuances of the learning experience (such as varying degrees of engagement across diverse "level of care" populations) were not specifically explored during learner interview.

The critical epistemological methodology we employed with exploring the data set in addition to the original thematic analysis were derived from modern knowledge theory a. observation, b. coherence and c. consensus. As the study proceeded, both the recreation therapy staff and the investigator, along with the faculty cohort, contributed observations, which, when they recurred, were identified as observational data and added to our construction of narrative. Therefore, given that our interview population varied with respect to the fecundity of interview data (with a mix of normal cognition, early dementia and moderate dementia), it was necessary to record observations across all 3 study cohorts to produce a more comprehensive and helpful picture of the teaching, learning and organizational delivery components of the study.

Study Outcomes

Our principle findings enabled us to develop a descriptive "picture" of what interactions occurred in the classroom between instructor and student and to gain observational knowledge from faculty about how their teaching was received by participants. These are indirect measures of engagement and learning, and this study was not designed to probe these variables. Our goal was to first describe learning experiences in this setting and then to locate a thematic relationship between subject interview data, both that from faculty and participants. As we identified recurrent themes, such as the need for multimedia support or the importance of avoiding "trigger" topics in class, we grouped these themes into a narrative explanation for what seems to occur in LTC education. The outcome of this analysis was to develop a unique theoretical basis for the rationalization of university continuing education courses in this setting and we also were able to design a basic taxonomy of teaching approaches suitable for this audience. These findings are described ahead.

Theoretical Background: Hedonic-Based (HB) Learning

William Deresiewicz, in his newest book, Excellent Sheep, discusses the concept of neoliberalism and the modern university education. Neoliberalism, otherwise described as Thatcherism or Reaganism, states that the value of a person is the value of their productivity. As such, the role of higher education, Deresiewicz argues, is to enable capacity building in students to lead a more productive career life. He, alongside such notable educators as Larry Summers, past president of Harvard University, and Paul Axelrod, past dean of the Faculty of Education at York University, offers us a critique of the ways in which this philosophy has come to dictate the primary aims of the university. In short, these analyses

which date back to the time of Dewey in some form, all argue that higher education, particularly universities, are now increasingly dismissive of liberal arts education.

In our study, where our primary audience consists of seniors in a long term care facility, this issue comes to the forefront of investigation. These are learners who will spend the remainder of their time either in the community with restricted mobility, or in a long term care setting, where the prospects of gaining further employment are minimal and not the desired goal of education. Alongside the thousands of Canadian seniors who participate in continuing education (CE) courses, their goal in registering for these courses is unrelated to building future capacity. Seniors in the community at large participate in CE for a variety of reasons, which have been reviewed in the literature on older learners. These reasons consist of a. increased social support, b. entertainment, c. learning basic life skills, d. learning about how to improve or maintain health or e. improving knowledge of the world for its own merits. This last category, those learners who participate in CE for learning itself, we can describe in this paper as "hedonic-motivated", ie, motivated by the pleasurable experience of learning itself.

Hedonic motivation is of central importance in our study. In stark contrast to neoliberal views of higher education, hedonic-based (HB) courses are designed only to create a pleasurable response, sense of reward, to satisfy curiosity and expand the learner's knowledge of the world. At the core of all HB courses lies the style of presentation, which must encourage engagement, the selection of course materials which stimulate learner participation and the development of insight or awareness of a topic area. HB courses can be described as "edutainment" in their most narrow view, such as watching a historical drama series on television. The subtle distinction between pure entertainment, a hedonic experience, and HB courses must be observed in order to proceed to an analysis of HB in a long term care setting. What differentiates entertainment from education, when the goal of learning escapes from neoliberal driving forces of preparing the learner for increased social or financial contributions to society?

Pure entertainment does not adhere to any form of validated narrative or exposition, for one. Its aim is to enable a pleasurable experience, such as humor, fantasy or drama. Factual authenticity and clarity is only important insofar as it improves the narrative or its consistency. There is no demand for authoritative discussion, the Wizard of Oz retains its value without testing itself against the plausibility of Dorothy's translocation to another world, or the cowardly lion's redemption. This latter point, that of communicating a fundamental philosophical truth, or truth of any type, through narrative, is not a necessary or sufficient condition for entertainment. If it occurs, it may add to the value of the production, but its primary goal is not to transform the viewer.

By contrast, HB education has, as its primary aim, a transformation of the participant. Even the language differs. We regard the audience of edutainment as a viewer, a passive entity. HB education envisions the viewer as an active agent, whose ideas or knowledge of the world is changed by participation in the course. This key concept, of education as a form of intentional behavioral change, is critical to our discussion. Intentional change, even if the measured behavior arising from it is subtle (engagement, continued participation, asking questions during class), is core to educational activities when compared to those of pure entertainment.

What intentional change do we measure when observing seniors learning courses of "pure interest"? Can we stratify these learners into categories, those who are entertained by a course on art history, by

its narrative and by viewing and comparing works, versus those who approach the course to accumulate knowledge and use it to enable them to procure better art, or appreciate cultural activities more? This certainly has been done in the literature on learning in seniors and is of core interest in the 50+ program at Ryerson University. Over the past 20 years, Ryerson University has conducted extensive course evaluations and surveys to determine why students over 50 years of age enroll in their programs.
The following tables summarize the key themes which emerged during interviews. A theme was identified whenever more than one respondent discussed an issue (such as the need for multi media), or, when an interview subject replied to the interview question with an in-depth response. An in-depth response was one in which the subject volunteered to expand on the question to develop a coherent argument for their comments. For example, in the Learning Cohort, the concept of fascination arose in longer discussions of why a given course was interesting. Teaching and Administrative Cohorts were interviewed by phone or in-person. The Learning Cohort was interviewed by an RT. Release forms were required for learner interviews, under the ethics review board directives.

Analysis of the themes was then completed by using classical epistemological methodology, see Guba and Lincoln in references. In summary, a theme was considered to be part of a narrative if it was a. observable (referred to in the interview), b. consensus-based (arose more than once across subjects and/or cohorts) and c. was coherent. Logical coherency, consensus and observation are the gold standards epistemology, ie., determining whether a theme, or narrative, is “true”.

The Learning Cohort (N = 18 Survey Interview, N = 25 Observational Study)

Theme	**Sample Comments**
Presentation Style	Must be loud and clear, well prepared, multimedia heavy, slow delivery
Enjoyment	Enthusiasm, instructor knowledge, renewed interest, remembering the past,
Learning	Historical data, expert knowledge, fascination, ability to learn after a life of work
Setting	Multimedia central, comfort, accessibility, awareness of courses
Attendance	Mean value – 12, Max 16, Min 6, in Highest Functioning
	Mean value – 25, Max 40, Min 15 in Lowest Functioning

The Teaching Cohort (N = 12 Survey Interview)

Theme	**Sample Comments**
Teaching Method	No difference from general education, media based
Adapted Classroom	Effects of medications, seating arrangement, timing of breaks
Emotional Responses	Catharsis, disturbing recall, comforting recall, engagement
Course Goals	Participative, review of core concepts, historical narrative (story telling)

The Administrative Cohort (N = 8 Survey Interview)

Theme	Sample Comments
Inter-professional Coordination	Need to involve RT in all decisions
Program Champion	Must have a central leadership post
Internal Marketing	Decisions about scope and ability to manage volume
Financial Support	Fluctuations in funding occur as registrations increase or decrease
Cost Recovery	Total Costing is hard to predict

The Teaching Cohort Analysis

Overall, we identified a variety of teaching strategies useful for working with this population. It was necessary to develop a basic taxonomy of approaches in order to conceptualize classroom practice. This population, due to health and cognitive capacity variables requires a fresh view of teaching, which borrows from existing methodologies to develop an "adapted" model.

One key consideration in a blended audience of this nature, is the extent of cognitive mapping. Cognitive mapping is linked to recall, the student's ability to remember what was taught and to form some kind of conceptual understanding of the field. In subjects from high functioning "floors", where physical limitations were prevalent, cognitive mapping is presumed to be much greater. In lower functioning "floor" audiences, those with mild cognitive impairment, we determined that consecutive inter-session recall is not important, but *within-session recall* (intra-session recall) is the goal. The same applies to narrative, where the primary responses are seen in the form of persona history recall.

This type of within session recall was evidenced by vigorous arguments sustained in courses such as philosophy, where one student, with moderate dementia, who attended all sessions, rejected the concept of intellect as being superior to feeling in appreciating art. She quite cogently defended Kant's position that art is defined by its purpose and its expression, rejecting the counter argument that art is defined by skill or meeting objective standards. This is a high level judgement which demands that the student be able to a. recall the concepts of art as intention verses art as praxis, b. retain both arguments to contrast them for validity according to their experience, c. connect this resolution to prior learning within that classroom session, and d. be able to verbalize the nuances of this argument coherently. This particular student was one who had impressive metacognitive skills, "I love this course and it is the highlight of my week, but I forget things and you must come to get me for each class, I do not want to miss it!".

The assumptions regarding subjects with dementia as being unable to formulate coherent response are clumsy and ill-conceived. Students with higher levels of impairment might remain silent through a tough philosophy exposition, only to suddenly recall prior life events which appear to have been triggered by exposure to course content. In the language of senior's care, this is referred to as

“triggering”. These trigger incidents hint at the power that exposition has to evoke memory.

The power of exposition (lecture) and demonstration (musical performance and criticism) to evoke recall was a persistent them encountered across courses. In our music program these behaviors became so prevalent that our instructor chose to develop a model for understanding the relationship between musical exposition, recall, comfort and social connectedness.
In this model, the faculty member proposes the following process, which he calls “the Zen State”.

Exposition ----->Recall of Life Events ------>Comfort ------->Connectedness

In summary, our music instructor's model is to introduce music from specific periods of history, which often lead students to remember life events associated with that music, which provides them with a feeling of comfort. This feeling of comfort brings the group into a “feeling space”, where the instructor can now respond to the learners by introducing material that helps sustain that feeling of comfort. The evidence comfort was observed in facial responses (smiles, laughter), in body language (engagement, participation) and in verbal reports (“you have saved my life”). This effect, whether it will withstand the rigor of more intensive neurocognitive investigations, is phenomenologically true, that is, a teacher working with a group in the music program can easily detect these responses by paying attention to the group. This last concept, of “paying attention” is of extraordinary importance in this work. The instructor cannot rely on test scores, well developed questions or assignments to evaluate whether they are “reaching” the learner. They must use more nuanced information and must be capable of changing the pacing, emphasis or even content of the course to encourage this feeling of connectedness.

How can we operationalize connectedness and then presume to measure such an abstract property? In this study such operationalization and measurement is deficient and we are currently planning further studies to investigate these. In general, a teacher who sees that most of the class is making eye contact, asking questions and answering them when invited, where students return week after week and approach the instructor with gratitude, is capable of making useful observational judgments. Perhaps most noteworthy is what occurs when these conditions, of creating connectedness with the teacher and/or the group, fail. Fortunately, for the purposes of our study, we were able to see the consequences of a failure to connect first hand as illustrated in the following example..

One instructor, working with the moderate level of care group (mixed physical and cognitive challenges) found themselves under constant criticism from learners in class, regarding their presentation style. The students began to approach the recreation therapist regularly, week by week, to convey these concerns. Not only did they voice persistent concerns about teaching effectiveness, but they began to leave the course, in small numbers, until more than half the group had withdrawn. This violates our most basic preconceptions about learning with dementia and age-related disability, that has been quoted by others to the researcher “they have dementia, just put them in a room anywhere in they will be happy, they do not know what is going on”. Although this assertion seems cruel at its outset, it does resonate with our presuppositions about dementia, that they are passive individuals in a learning environment. In contrast to this conjecture, our findings were that students will rebel, will leave courses, will develop coherent, logical reasons for taking such actions, that they will weigh such actions against consequence of its impact on the teacher and do have learning preferences. The instructor was advised of this “gap” in learner needs and their teaching style, but refused to change. As a result, the students continued to leave the course and demanded that the teacher not return. This is far

from the image of the passive state of such populations so commonly described in media.

A model began to emerge in which we viewed the teaching style as a way to trigger cognitive mapping and recall, which varied with the type of presentation. In the interest of charting out the pedagogic methods used at the BLA, we developed the following taxonomy. This is not intended to be a rigorous system, but rather a navigational tool, to select the appropriate teaching method for a given audience. Reading materials are not used in teaching LTC high level care (HLC) audiences due to recall limitations and inability to access materials, so each of these educational sessions exists in the classroom alone.

Types of Teaching for Dementia and LTC (Long Term Care)

1. Aesthetic Judgment Analytic

2. Aesthetic Hedonic

3. Philosophical Reflective

4. Historic Narrative

5. Didactic Expositional

6. Participative Reflective

Aesthetic Judgment Analystic (AJA)

The content of these courses is based on viewing or experiencing works of art and music. They differ from aesthetic-hedonic (AH) courses below in that they are not provided to create a hedonic response, but to inform the learners of a narrative in the creation of art. Although elements of AH occur with a primarily AJA course, the primary aim of these courses is toward increasing the learner's within-session factual experience. Aesthetics, Art Appreciation.

Aesthetic Hedonic

The content of these courses is based on “edutainment”, the triggering of a hedonic (pleasurable) response by observing, viewing cinema, listening to music, observing art and then attaching a narrative to the observations. Film and music history are presented to trigger a hedonic response which then enables various quasi-therapeutic responses such as recall, comfort and refinement of appreciation. They differ from AJA type courses in that they are based primarily on engagement through hedonic responses rather than through analysis of works of art. Music, Cinema, Theater.

Philosophical Reflective (PR)

The content of these courses is based on having learners question their own beliefs, values and behaviors by engaging in a meta-analytic exercise which resembles philosophical delivery with guided

exploration. Socratic methodology is used, as is historical discussion of philosophical ideas. The goal is to enable students to engage in critical meta-analytics. Psychology, Philosophy.

Historic Narrative (HN)

The content of these courses is to present a narrative which links events over time to specific causes and outcomes. History of exploration, of science or other topics creates a compelling narrative which produces linking of within-class explanation of events. History of Fashion, History of Psychology.

Didactic Expositional

The content of these courses is designed to introduce factual content and develop a concept map of course material. Courses on science, such as Oceanography, Mind-Body Medicine, Archeology.

Participative Reflective

These courses are designed to engage students in the subject area by direct participation and to reflect on their experiences. Theater, Music, Philosophy.

Implications for University Continuing Education Units

In summary, this population is both eager to engage in, and entirely capable of benefiting from the introduction of "Seniors" courses. The participation rate, as measured by recurring course enrollments and continued attendance in these courses is very strong. Values such as average number of participants are less helpful here than would be the case in regular CE offerings. These learners are, for the most part, either confined to a LTC setting or are closely associated with retirement residences, or other forms of assisted living. As such, their motivation to take such courses stratified into different groups,

a. LTC residents with cognitive impairment
b. LTC residents without cognitive impairment
c. assisted living (retirement home residents) with cognitive impairment
d. assisted living without cognitive impairment
e. community members who are 50+ and are associated with LTC facilities in the form of receiving services such as assessment or support

It was not possible, given the limitations of this first study, to fully explore each of these populations for between-group differences in course demand, participation or benefit. What is apparent is that there is considerable heterogeneity in this population which is "real world" and reflects the conditions in any potential setting that such courses would be provided.

To put this into a real world example, there were couples who attended the courses, with one partner diagnosed with dementia, and the other both mentally and physically healthy. Certain students over the age of 90 were quite robust and had no evidence of cognitive impairment and were as mentally "agile" as an undergraduate learner. Seated next to such a student, might be one with early dementia and a

hearing impairment. In this same classroom we may locate a student who has moderate dementia and responds to the course content or setting (such as seating comfort or classroom temperature) with responsive behaviors. The very nature of LTC course offerings is such that the audience will be heterogeneous with respect to their level of physical and mental capacity.

Given these broad effects in art education and its connection to learning, at the very least, LTC facilities should consider "academically-based" courses as a therapeutic intervention. The data regarding the use of abstract, non-arts based learning is not conclusive at this time and we are now pursuing studies to analyze this effect, as described above.

Program Implementation

There are key factors in the determinant of success in this program which we obtained by interviewing program administrators, instructors and directors throughout the study. The first category related to the composition of the program staff, the second relates to the selection of facilities and the third describes the interface between medical and teaching needs in play during instruction.

Composition of Program Staff

There are 5 program team positions that were provided to optimize delivery in this project. These are restricted time commitments which vary in demand between 1 hour to 5 hours a week.

1. Program Coordinator: The program coordinator represented the academic institution and is responsible for hiring faculty. The program coordinator develops the curriculum for the program and interacts with the recreation therapist (RT) to make course descriptions available to the institution.

2. Recreation Therapist (RT): The RT oversaw the portering of students (their transfers to the learning facility within the LTC setting), the advertising of the courses and related marketing, and is present during all sessions to ensure that medical concerns are addressed and safety is provided. The RT administered course evaluations and collects needs assessment data, often in conjunction with the program coordinator. If medical issues arise during a course presentation, the RT coordinated intervention.

3. Faculty Members: The faculty member should be comfortable with multi media teaching and should have an engaging teaching style. Courses are selected from needs assessment data such as survey instruments provided by the program coordinator/RT team. Faculty were selected on the basis of evidence of success in prior senior's teaching and learning, often from a community-based program provided by the CE department.

4. Executive Director, Department of Arts, Culture and Innovation: The executive director of the Baycrest Learning Academy project was responsible for locating funding to operate the program from student registrations or other sources, and appointing the RT staff who serviced the program. The executive director monitors the quality of care of educational services in accordance with the policies in place.

5. Continuing Education Institution Liaison: The director of the CE program unit that oversees the older adult learning program coordinates the activities of the program coordinator and participated in faculty selection and monitoring the program for cost effectiveness and quality of content.

There are other departments which this team interacted with, such as room booking, provision of multimedia support, coordinating volunteers and working with volunteer services, marketing, web design and other teams. This work was supervised internally by the RT assigned to the program.

In summary, a this program involved the coordination of these five job functions to form an implementation team capable of not only providing ongoing instruction but also monitoring effectiveness and student satisfaction.

Selection of Facilities

All courses were offered at the facility itself, transportation of students outside the facility was not feasible nor desirable. Recreation rooms, often designed to hold between 20-40 individuals were selected. Where learners did vary was in 3 dimensions, a. classroom space and resources, b. nature of the learning experience, c. recruitment pool.

Classroom Resources

The general guideline for higher education planning is defined as an average classroom size of 750 square feet of space for every 40 students. Our review indicates an average enrollment of 20 with this same space as adequate. Wheelchair access and personal support worker seating require an additional 300 square feet, hence, a regular classroom has an advised student capacity of 20 for 750 square feet. There needs to be clear access for wheelchairs to leave the room during the presentation or arrive late. The seating plan varied between courses to allow for circulation and access space, think of it as a kind of pathway built into the seating plan which permits learners with disabilities to be comfortable on entry and egress. Although the actual "footprint" of the seated population is only marginally greater than a regular lecture hall, the circulation space dwarfs it and is essential to maintain for safety and comfort. By interviewing the RT's it was discovered that appropriate arrangements were needed to accommodate varying levels of disability as well.

Resources includes media, physical teaching aids and written materials. The demand for written materials was minimal and seldom requested by learners. However, a good quality computer with a projector and access to the internet for streamed videos is desirable, as there was uniformly high demand for high technology. Learners benefit greatly with the use of pictures (see learning experience ahead) and music, along with video lecture "snippits". The facility must provide these in order to optimize teaching to this population. There are exceptions to this and it does not refer only to high technology. Music courses require a piano or other instrument. Theater courses require flexible seating arrangements and little else. Courses in art, science, history or culture demand computer access, and those in science require streaming media to simplify complex ideas. It is not enough to prepare videos and slides ahead of time, this type of teaching is highly responsive and situational and demands flexibility from the instructor.

Nature of the Learning Experience

Our current data reveals that during an instructional session, the primary outcomes for the learner are in the affective and metacognitive domains. This differs in stark contrast to regular university students,

where content retention is central. It also differs from 50+ learners, in that there is not an intensive, content-focused delivery with in-depth knowledge which aims for progressive knowledge acquisition in learners. The typical 50+ community-based senior is introduced to considerable depth of ideas, but this group varies at times. They often fail to recall prior lecture material due to a variety of factors, medication use, early dementia, neurological or sensory impairment or reduced cognitive processing speed. Other students in the same classrooms are identical to the 50+ learner in the community.

During our educational sessions, instructors repeatedly revealed a certain theme of "comfort, reflection and recall" as persistent outcomes of instruction. When a theme analysis of interview data was constructed, the concepts of "comfort through learning", "self esteem through learning", "social support through learning", and "engagement through learning" were core. Content, instead, is used to trigger recall of earlier life events, which brings emotion, which engages the learner. The content, if trivial, fails to engage the learner in the same way.

The nature of the "course" as opposed to a single lecture or a series, is the rehearsal of knowledge which is triggered by cognitive interval training. By scheduling learning in the same location at the same time for many weeks, we enhance cue-based recall and more importantly, we continue to force the learner to make new neural connections and revise knowledge of the world. Whether they recall this knowledge is secondary. Each session works as a "booster session" for the previous one. The constant
focus on learning in a single subject area forces the learner to adapt to new knowledge and integrate it with prior learning. In seniors with cognitive impairment, due to stroke, dementia, medication reactions or other causes, this constant cognitive load trains retrieval and reflection.

The BLA groups, although mixed, show a clear subset of learning outcomes, those related to recalling prior life experiences, that are accessed through introduction to content. To make this abstract idea more concrete, one learner in a science course, immediately recalled the Nazi's arriving on her doorstep on October 14 in the early 1940s, and taking her sisters, her mother and her cousins away. She said she would never forget that day. This was triggered by discussion of advances in technology in the 1940s. The connection of dates and historical periods to content triggers powerful recall with affective dimensions. The recall of that date for the learner was painful, but not all recall is so. Another learner recounted an entire ski expedition he had long forgotten, with enough detail in it, over 15 minutes of reflection, to substantiate the content. Another learner, a 55 year old male with a recent stroke with dementia as an outcome, was a key government advisor in health care for most of his life and during the course, he was able to give a presentation of health care legislation in Ontario, which other students, in turn, were fascinated with. Thus, this environment enables learners to benefit from each others recall.

The element of comfort through learning cannot be understated. Our educational activities at the BLA aim to provide comfort in a broad philosophical sense, not simply the easing of discomfort. It is more of a paradigm of comfort as a form of happiness, as defined by Lennard Nordenfelt in his discussion of health for the World Health Organization. Learning activities contribute greatly to achieving what Nordenfelt calls a "minimal level of happiness", which is accepted as the primary measure of health in his discussion. They may well come to be seen as a form of recreational therapy in a legitimate sense.

Recruitment Pool

There are two classes of issues related to identifying and inviting students into BLA courses. The first has to do with level of care and the second is related to marketing of services.

Word of mouth advertising through the local long term care facility is the most dynamic method. In such institutions, the population is defined and insular and information travels immediately from resident to resident. Out of sheer curiosity, many potential students will see notices about ongoing courses, which were championed by a local facilitator. This facilitator was a recreation therapist (RT) trained in how to best provide information in a way that residents can understand and use for enrollment. Low initial enrollment figures are a poor indicator of course satisfaction. A few students will show up for the first class and if it is engaging, the class will fill the next week. This is quite different from community-based advertising for CE in universities, where broad reach and local word of mouth combine. In long term care, the target audience is situated either in the facility, 24 hours a day, or closely affiliated with the facility in the form of regular visits and communications through a web site, or local newsletters.

All of the marketing of the courses is done locally therefore, within a single building or complex. This requires a defined program champion who interacts with the residents on a daily basis and is tuned into the pulse of the organization. They know the residents by name, they know the personal support staff and medical staff, and can work inside the institution to promote the program with sensitivity and flexibility. Without an internal program coordinator for learning services, to promote, arrange media and resource access and to facilitate entry and egress from the classes, these programs can not work.
Level of care is an issue which permeates all aspects of course administration. Residents must be approached in the confines of a health care facility and vulnerable sector permissions are required, favoring the demand for a working RT to coordinate the program. Residents are on different medications, some which produce somnolence or impair ability to get to and from the classroom. Some residents are self mobile, others must be picked up in their rooms by a worker and then brought to the classroom. During the classes, there must be a monitor to deal with washroom needs, arising medical incidents (none of which have occurred but must be prepared for) and to assist with seating.

Seating arrangements varied across courses, but do not conform to a specific pattern. In theater and other interactive content, wheelchairs or chairs are placed in a circle, to enable interaction with the group. Seating arrangement is an art in this setting, given the earlier observations we refer to on the nature of classroom size and character. Seating arrangements must take into account audibility, visibility and compensation for medical care, such as ability to rapidly move a participant out of the room without disturbing the course presentation. Microphone systems are essential, as hearing abilities vary across learners. A large projection screen with speakers is also desirable, as visual abilities vary.
The lecturer does not need to use a microphone in all settings, particularly with the circular seating plan. However, a microphone must be available at all times in the event that a learner enters the course with compromised hearing.

Medical and Teaching Interface

During the class, students do have medical needs which can arise or require the attention and intervention of the RT. There are a few categories of these needs and most are anticipated by RT workers in their daily work.

1. Responsive Behaviors: In the dementia-affected category, some students can exhibit what are referred to as responsive behaviors, which are defined as behaviors that arise from the effects of the illness. Many of these behaviors are purposeful and may indicate discomfort from sitting too long, or a need to take a washroom break or leave the classroom out of fatigue, effects of medications or other reasons. The RT is trained to identify such behaviors which might include verbal cues such as moaning or speaking or agitation, and the faculty member must be aware of this spectrum of behavior. The class must be able to continue for the other attendees as they responsive behavioral episode is resolved.

2. Trigger Incidents: These, while extremely rare, must be monitored and prevented when possible. A trigger incident is one in which the educational experience is unpleasant for the participant due to its content, autobiographical memory stimulation or other memory-related causes. For example, any mention of the Nazis, of World War 2 or other related content (Wagner and Hitler, Hitler and the Uber Mensche) in a predominately Jewish facility, where many residents are holocaust survivors, may elicit traumatic recall. Simply discussing the late 1930s, for some residents, brought back memories of Nazi internment and early segregation of Jews in Poland. The instructor and RT must exercise caution when discussing "trigger" content. Another category of trigger incident is "offensive content", which, for members of this 70+ cohort, might be swearing, racist humor and "edgy comedy". In one course, several students walked out of the classroom after hearing a lot of profanity from movie clips as part of a history of American cinema course.

3. Loss and End of Life Care: Even in a high functioning population in LTC, there are students who will face extreme medical challenges and will die during the span of the course. We have seen few incidents of this nature in our classrooms, but we have seen students pass away during the course, between sessions. In one particularly poignant incident, a man and his wife attended BLA courses for the better part of 2 years together. They were both absent for a couple of weeks during one course on philosophy, and the man returned to class after that. When questioned on how his wife was doing, it was revealed she had passed away the previous week. There was now an empty chair where she had sat. What was most impressive to the investigators, was that the husband continued to attend the course and completed it. When asked why he was coming to class, after such a devastating blow, he remarked that he loved what the course had to offer and how it made him feel. This man was high functioning, without any evidence of the dementia which had affected his wife. May we conjecture that in this case, the course gave him distraction, support or some form of comfort in a time so difficult to endure?

4. Medication and Illness Related Behaviors: We have seen relatively few of these occur in class but they do arise and faculty need to be aware of the RT role in dealing with these incidents. In one case, a student began to projectile vomit during a lecture and the RT had to administer rapid support to protect the resident, while not permitting the class to be disturbed. In another instance, an instructor came in unprepared to connect his audio visual equipment while a medical emergency developed for a resident in the adjoining washroom. The RT had to multi task the medical response team, portering of students into the room and helping the instructor organize their audiovisual materials. It is more common, however, to see the effects of medications on learners, particularly sleepiness and sedation, which can be mistaken for loss of interest in the course content. Some medications do produce drowsiness and it is

important that the instructor distinguish between these effects and unsuitable teaching practice!

Summary

The Baycrest Learning Academy has now been in operation for over 2 years and is continuing this term with courses in “The Great American Songbook”, “American Cinema and Censorship”, “The History of Fashion” and “Great Classical Composers”, alongside an ongoing Thursday afternoon seminar in “Philosophy and Psychology”. Course enrollment remains high, with a range of 15 – 30 students in each session. Based on this simple descriptive study conducted over the past 18 months, we feel that this learning activity is highly desirable to enrich the quality of life for learners.

At this point in time, the overall long term strategy is to provide an orientation and training program for faculty new to teaching in this setting. This program can be used to train peer tutors as well, a key objective at Baycrest, toward a community and faculty mix of continuous higher education. This research project was designed to also provide us with the necessary data to design such a training program, which could then be exported to other institutions who may decide to provide CE course offerings in the long term senior’s care setting.

Socrates first described the role of learning in human life, that education alone, defined the human being as distinct from other species. “The secret of happiness, you see, is not found in seeking more, but in developing the capacity to enjoy less.”, and even more to our point “Education is the kindling of a flame, not the filling of a vessel.”

It may well be a moral imperative that we do extend CE to those who cannot leave long term care to pursue learning and it may also be of therapeutic value. In this study we were able to identify key factors in effective delivery of CE offerings at the university level for residents of LTC and to describe the satisfaction and engagement which was experienced by our learners.

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Ten-Year Effects of the Advanced Cognitive Training for Independent and Vital Elderly Cognitive Training Trial on Cognition and Everyday Functioning in Older Adults

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